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ADMINISTRATION

EXECUTIVE SKILLS 21: A FORECAST OF LEADERSHIP SKILLS AND ASSOCIATED COMPETENCIES REQUIRED BY NAVAL HOSPITAL ADMINISTRATORS INTO THE 21ST CENTURY

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EXECUTIVE SUMMARY

Those in the Naval Medical Department are experiencing an exciting time of bridled chaos and creative change. Many mid-career officers are uncertain of the leadership behaviors and skills that will be necessary for successful managerial careers. Changes in the method of health care delivery in this nation, combined with the reengineering of the Armed Forces' world wide mission, have driven military medical leaders to expand their professional skills, knowledge, and abilities beyond the clinical sciences. This research identifies the most critical domains in the science of health care administration and differentiates and ranks job skill, knowledge, and ability requirements that will be necessary for successful health care management into the 21st century. Top Naval Hospital executives responded to two iterations of a Delphi inquiry. These medical leaders identified 106 unique issues that were content-analyzed into nine domains by a neutral, expert panel. Domains, in order of ranked importance, were leadership, health care delivery systems, cost-finance, technology, accessability, professional staff relations, marketing, quality-risk management, and ethics. In the second Delphi iteration, hospital executives reviewed domain results and rated identified job requirements on their required job importance. The top ten rated skills, knowledge, and abilities (SKAs) are reported. Results indicated that while a business orientation is needed for organizational survival, an emphasis on person-oriented skills, knowledge, and abilities is required for future success as a health care administrator in the Naval health care system.

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CHAPTER 1

Introduction

The Naval medical environment is currently one of rapid environmental change, managerial uncertainty, financial instability, and organizational volatility. It is placing enormous demands on providers of care and those who lead and manage these health care delivery systems. Future pressures will likely intensify due to the continued growth of managed care arrangements, evolution of the kind and site of care delivered, changing population demographics, ambivalent public policy, escalating costs with dwindling financial resources, and heightened concern for quality (Berger and Kurtz 1991; Coile 1990; McKahan and Begun 1990; Zinn 1990). The multiple forces contributing to this rapidly changing environment have placed the Naval health care system in the midst of a structural revolution that is reshaping the financing and delivery of health services. With this reengineering, military medical leadership faces a major redesign of the organization and management of their institutions (Goldsmith 1985; Conrad and Mich 1987; Martin 1990).

Although there is a general silence regarding military health care, there is a large body of literature describing private sector health care in terms of the contemporary turbulence buffeting American health services delivery, (Berger 1993; Reinhardt 1993) the fiscal and managerial challenges facing American hospitals, (Cleverly 1992; Eastaugh 1992; Stefos, Lavalle, and Holden 1992) the rapidly changing medical staff relationships, (Schneller 1991; Beckham 1991; O'Conner, Lanning 1992; Friedrich 1993) and the changes in executive roles and

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competencies that will be needed to cope successfully with the intensifying pressures of the future (Altman 1991; Westbury 1991; Stevens 1991; and Miller 1992).

In this context of rapid change, academic programs in health care administration must maintain a strong orientation of external surveillance and internal assessment to ensure the continued relevance of their curricula to the job skill, knowledge, and ability requirements that will be needed to cope effectively with emerging managerial and leadership demands.

The intent of this study is to obtain a consensus of opinion from a select group of Naval health care executives on those issues that would be most critical for health care organizations into the 21st century. Consensus will be sought regarding the skills, knowledge, and abilities (SKAs) that will be needed for successful health care executive performance in the future Naval medical environment.

Literature Review

The strong bond between active health care executives and the academic programs that educate members of the profession has led to a practice based evolution of the profession of health care administration. Early founding directors of graduate programs in hospital administration included eminent practitioners such as Arthur Bachmeyer, Ray Brown, George Bugbee, Malcolm MacEachern, James Hamilton, Frank Bradley, Richard Stull, and Gerhard Hartman (Neuhauser 1983). Managerd in health care had traditionally focused on the hospital process and human relations skills until the 1960's (Greene 1990). During the ensuing decades, hospital administration programs evolved away from these roots. They became university based,

academically oriented, and truncated. Many programs saw the elimination of most residency

requirements. They became research-theory oriented with a primary focus on the business

oriented, functional specialties such as financial management and scientific decision making

(Greene 1990). This shift toward analytical and quantitative skills has only been heightened as

organizations have been forced into the business model of free-market competition. A serious

consideration has been to replace the Master of Health Services Administration degree in favor

of the analytically rigorous Master of Business Administration degree for the preparation for

health care executives (Goldsmith 1985; Greene 1990).

Analytical skills and functional abilities still are considered as critically important

ingredients for managerial success in health care organizations. There is some concern from

practicing administrators, however, that an exclusive focus on quantitative analysis, functional

specialization, and the rationality of the "bottom line" may not adequately prepare graduates to

be the visionary, adaptive, and collaborative team-builders who will be needed to lead health care

in the future (Goldsmith 1985; Greene 1990; Earle and Pfannkuche 1991; Hill and Levey 1989).

Some argue that as managed care flattens organizational structures for survival with a focus on

limiting access to care and cost, human relations skills and an understanding of the political

complexities of effective stakeholder management will become paramount (Earle and

Pfannkuche 1989; Blair and Fottler 1990; Flannery and Williams 1990; Weil and Herman 1991;

Hoare 1987). Industry observers are agreed generally that analytic skills and business related

functional abilities will remain key components of success in leading health care institutions in

an era of "managed competition". However, there is strong evidence of growing consensus that,

to become the visionary and collaborative team-builders needed to guide health care institutions

through a future of constant white water, leaders also must enhance the interpersonal, communication, and integrative skills that will be equally crucial for successful leadership in an era of increasingly complex and volatile relationships with a broad range of internal and external stakeholder constituencies (Blair, Fottler 1990; Pfannkuche 1991; Nystrom 1993). The mastery of interpersonal, communication, and integrative skills will be essential as health care organizations become more complex (Seaver, Hilling and Redmond 1990; Westbury 1990; Kazemek and Doody 1991; Johnson 1991).

The practitioner perspective is critical in determining the skills and knowledge that are considered to be essential to current practice as well as projecting those that will be important in the future. Before designing a study to assess the practitioner perspective on masters level education, a review of an earlier (1980-81) study of master's level education was undertaken (Tourigny, LaFrance 1983).

To ascertain the level of agreement between the perspectives of practitioners and alumni, a panel of six practitioners was convened in 1981. Prior to the first meeting, each practitioner completed a 217- item questionnaire developed from the knowledge and skill areas identified through the alumni survey. Practioner ratings were consistent with those of the alumni (Tourigny, and Berry, eds. 1985). These findings became the basis for much of the criterion for current accreditation standards for undergraduate and graduate programs in health care administration.

Although some graduates of master's level programs were in middle management, the 1980-81 study of alumni was not restricted to rating skills and knowledge important for middle-management positions. Each period's importance in this study, 1987 and 1995, was its

demonstration that comparisons made of professional competencies to practice was possible (Reagan, 1990; Tourigny and LaFrance 1983).

Little empirical research has been reported in the literature concerning the forecasting of the managerial skills that will be needed by military medical administrators in the future. The traditional way of polling individual opinions is by face-to-face discussion. Numerous studies by psychologists in the past have demonstrated some serious difficulties with face-to-face interaction. Among the most serious are:

(1) Influence of dominant individuals; for example, by the person who talks the most. There is little correlation between pressure of speech and knowledge.

(2) Noise. By noise is not meant auditory level but semantic noise. Much of the "communication" in a discussion has to do with individual and group interests, not with problem solving. This kind of communication, although it may appear problem-oriented, is often irrelevant or biasing.

(3) Group pressure for conformity. In experiments at Rand and elsewhere, it has turned out that, after face-to-face discussion, more often than not the group response is less accurate than a simple median of individual estimates without discussion (Dakley 1969).

Dr. Olaf Helmer, a mathematician-philosopher and one of the founders of the Institute for the Future, developed the Delphi technique as an attempt to deal with very distinct futures by making systematic use of the "intuitive guesstimates" of large numbers of experts (Lineman 1981). The original use for the Delphi was to predict the effects of atomic war on the United States. Since then it has developed into an accepted method of achieving consensus among groups of experts (Helmer 1967; Pyke and North 1968; and Duffield 1993). For example, the

Delphi has been used to obtain the predications concerning the impact of a new land use policy upon population growth, pollution, agriculture, and taxes. Additionally, the Delphi technique is often used in health care settings because the research normally requires the input of experts for the purpose of decision making, establishing priorities, and predicting future trends (Beddome, Clark, and Whyte 1993; Duffield 1993; Crotty 1993, and Aluise 1994).

When making forecasted predictions on events for which suitable information does not exist to allow for logical extrapolation, few alternatives are left but to solicit the informed opinion of a group of people who are considered to be the subject matter experts. The Delphi technique proposes that the opinion gleaned from several experts is superior to the opinion of just one expert. Studies have demonstrated that the estimation error of a group will be less than the average error of the predictions of individuals (Andersen and Company 1984). Proper identification of the sample population in a Delphi is crucial for the findings to be accepted. Respondents need to be representative of their profession or professional organization, unlikely to be challenged as experts in their field, and have the power to implement the findings should they choose (Delbecq, Van de Ven, and Gustafson 1975; Fink, et al. 1984). Should there be an error in the population identification process, it could seriously effect the reliability of the research. Therefore, to establish the extent that the same results would be obtained from another sample from the same population, a test for internal consistency should be employed.

Current professional literature exhibits the positive results obtained though the Delphi technique in forecasting health services-related issues. Delphi forecasts of health care trends, policies, and needs have been reported by such organizations and agencies as the Department of Health and Human Services, (Schoeman, Schwartz 1974) the Association of University

Programs in Health administration, (Richie, Tagliareni 1979), the American Academy of Nursing, (Linderman 1981) the American Medical Association, (Bowman, Katzhoff, Garrison 1983) the U. S. Army Medical Department, (Davis, Finsteun, Kane 1985) and the American College of Healthcare Executives (Hudak, Brooke, Finsteun 1993; Andersen A and Company 1984; Andersen A and company 1990; Andersen A and Company 1991).

In a joint study conducted by Arthur Andersen and Company and the American College of Health Care Executives, the professional society of health care executives, the Delphi technique was employed to obtain a consensus of health care experts concerning the future direction of the health care system (Andersen 1984). By surveying 1,000 experts throughout the health care industry, researchers at that time believed the results of their study, for the first time, provided a comprehensive assessment of the trends and strategies reshaping health care in America. They reported a shift required in CEO skills. In that study, it was forecasted that in 1995, the top priority ranked skills of a CEO would be (1) strategic planning; (2) medical staff relations; (3) financial planning; (4) interpersonal skills; and (5) governing board relations (Andersen 1984). The accuracy of this study has held up against further scrutiny.

In 1990, using the Delphi technique, a cross-sectional study of hospital chief executive officers (CEOs) reported strategy formulation, finance, negotiation/consensus building, and human resource development in decreasing order of importance as necessary skills (Eubanks 1990). A Delphi study of 2,600 physicians, hospital executives, and board chairs found that conflicts in human relations have resulted from continual pressures for cost control, increasing demand for provider disclosure of adverse outcomes through other performance indicators, and changes in provider payment plans (Wiel and Herman 1991).

Other studies have looked at particular domains of skills, knowledge, and abilities that medical facility leaders in the military feel will be necessary for future managerial success. There has been shown agreement among civilian and military executive respondents regarding the necessary skills needed in the changing health care environment. A Delphi study which used 50 Fellows of the American College of Health Care Executives found nine areas of importance to future administrators. These domains included, in order of importance: cost-finance, leadership ability, professional staff relations, health care delivery concepts, access to care, ethics, quality and risk management, technology, and marketing (Hudak, Brooke, and Finsteun 1993). A similar study was conducted in military health care facilities. Emphasis on financial and technical skills in conjunction with interpersonal and communication skills were found most important (Hudak, Brooke, and Finstuen 1994).

Purpose of This Study

Although specific literature regarding leadership competencies for success within the military health services delivery system is sparse, concerns about the appropriate professional development of Military Treatment Facility (MTF) Commanders have become a topic of significant emphasis within the Department of Defense (DOD). Reflecting its concern over the adequacy of preparation of MTF Commanders for the challenges they face, Congress, in a provision of the Defense Appropriations Act of 1992, mandated that MTF Commanders be required to demonstrate "professional administrative skills" (Deputy Secretary of Defense 1991). In compliance with this mandate, the Assistant Secretary of Defense for Health Affairs convened a Tri-Service Task Force in early 1992 to identify managerial competencies required to

successfully command MTFs. These competencies reflected health care administration SKAs commonly accepted in the private sector, as well as those which were uniquely military (Department of Defense 1992). In December 1996, ASD(HA) expanded the need for training theses SKAs to include MTF commanders as well as the DoD TriCare Region Lead Agents and their senior Staffs. In March 1996, the Army Medial Department Center and School was rechartered to include development of an executive skills assessment/validation program (Department of Defense Information Paper, 9 Dec 1996). These competencies were derived from an assessment of the knowledge, skills, and attitudes required of the professional role. They were identified from a range of sources such as: Delphi analysis, taxonomic analysis, a review of the literature; job descriptions and standards of practice; task analysis; input from educators, employers, clients, the profession and special interest groups (Brosk et al. 1979; Hall and Jones 1976).

In view of the radical changes in the Navy's health care system, a need to delineate the skills needed for successful executive performance is imperative. This study will attempt to add additional insight to the growing literature in this area as well as create a baseline of understanding of the SKAs needed by future Naval medical leaders. It may also be used as a foundation on which to build educational systems in order to train military medical professionals for success in the future.

CHAPTER 2

Methods

Senior Naval hospital administrators were chosen as study respondents due to their demonstrated expertise in managing the complex organizations, world wide, of the Naval Medical Department. Current Commanding Officers, Executive Officers, and Directors for Administration were deemed the best source for the estimation of future health care administrators' job issues and requirements. The research method used consisted of two iterations of the Delphi technique for executive decision making separated by an expert panel content analysis.

The Delphi technique developed by the RAND Corporation (Helmer 1967; Dalkey 1969; Brown, Cochran, and Dalkey 1969; Delbecq 1975) has been used in a variety of health care settings to establish priorities and predict future trends (Schoeman and Schwarz 1974; Richie, Tagliareni, and Schmitt 1979; Bowman and Katzhoff 1990; Andersen et al. 1991; Anderson et al. 1991; Anderson et al. 1984). During the first round, Delphi participants were asked to identify five major issues that were felt to be of greatest importance to future medical leaders. Members were asked to articulate specific skills, knowledge, and abilities that might be needed to deal with those issues. This was an open-ended format. To shorten the response time, electronic mail was used for instrument delivery (see Enclosure 1).

Ethical Concerns

Ethical concerns for anonymity of respondents was considered essential. This was

ensured by isolating their electronic responses, cutting and pasting them into a single word processing document. Names, addresses, and corps were not retained, only their pure responses. The original message response was then deleted, leaving no record of individual participation. This environment of non-attribution was critical to the viability of the study.

Responses were entered into a word processing data base. Key phrases were designated for the main theme or content of each Health Care Administration (HCA) issue. The frequency of response of these key phrases for each of the issues were then summed.

An expert panel of five senior Naval health care executives was assembled to sort the collected issues into a set of meaningful domain categories and to determine an appropriate title for each domain. These domains were then rank-ordered by the reported frequencies of issues. Results of this process were provided as feedback to the executive respondents during the second Delphi iteration.

A structured questionnaire was developed from SKAs within the identified domains. The intent of collecting SKAs was to form a standard pool of job requirement items for each HCA domain. No attempt was made to purify the data or to standardize item statements. This capture of "HCA job language" was thought to provide respondents with the thinking of their peers. During the second round of decision making, executive respondents were asked to review the feedback materials and to provide relative importance ratings on a 7-point relative importance rating scale anchored at the extremes ranging from 1=extremely unimportant to 7=extremely important for the SKA items within each of the HCA domains. Background and demographic data such as job experience, education, and facility size were requested at this time (see enclosure 2). Rating reliabilities and descriptive statistics were computed for each of the SKA items.

Delphi Iteration 1, HCA Issues

During the first iteration of the Delphi, 54 of 87 executives responded for a return rate of 62%. This response rate was considered adequate for the study (Richie, Tagliareni, and Schmitt 1979). A total of 106 issues were identified, together with 302 corresponding SKAs. All geographic regions were represented.

Content Analysis of Issues, HCA Domains

To ensure content validity, the five expert panel members were asked to sort the collected issues into a set of meaningful domain categories and to determine an appropriate title for each domain. The average age of the panel was 54 with a total of 107 years of health care executive experience. Collectively the group held three advanced medical professional degrees, three Master's degrees and one doctorate (Ph. D.) degree.

After the panelists examined the issue key phrases and determined titles for the HCA domains, the experts were asked to make ratings of their individual judgments in terms of confidence and accuracy. They responded by the use of a 7-point relative confidence rating scale that ranged from 1=extremely unsure to 7=extremely confident. A second question of the accuracy of the group's revised issue placement was asked. Confidence ratings rose from 6.3 for the initial decisions to 6.7 for the group consensus decisions. These strong confidence scores reflected the panel's feeling that the issues were accurately placed in the correct domains; and established the content validity of the domain-SKA arrangement.

Nine domain cluster categories were established. Frequencies of the issue key phrases

were summed to arrive at a total domain frequency. Domains were then rank ordered by total frequencies as shown in Tables I and II and Figure 1.

Delphi Iteration 2, SKA Ratings

The issues obtained from the expert panel were used to operationally define the HCA domains for the executive respondents during the second Delphi round. The same population of respondents were asked to review the group feedback and to make 7-point relative importance scale ratings of the SKAs within each of the HCA domains. Sixty three or (72.4%) responded with completed ratings.

Demographic and background data gathered showed this group to be 94% male, with an average age of 50.21 ± 2.38 years. The average experience in the health care setting was 22.38 years with 16.98 years of executive experience.

Ratings of the SKA items by the Delphi executives were assessed for the degree of overall agreement (inter-rater reliability) with Cronbach's coefficient alpha (See Table III). Any research based on measurement must be concerned with the reliability of the data. No validity coefficient and no factor analysis can be interpreted without some appropriate estimate of the magnitude of the error of measurement (Cronbach 1951). Reliability indices ranged from a low of .84 for Quality/Risk Management to a high of .96 for Heath Care Delivery. These findings indicated that the obtained ratings of SKAs were internally consistent within the executive group and that average values computed for SKAs within each specific HCA domain categories were stable.

CHAPTER 3

Results and Discussion

Predicted Future Issues

The results of this study predict that future Naval hospital administrators will be faced with nine major domains of issues. The ranking issues domains by MTF leaders was similar to the results of the previously cited comparable study among senior executives in the private sector (Hudak, Brooke, Finsteun, 1993). These clusters of issues considered by top naval health care executives are, in descending order of priority: leadership, health care delivery, cost-finance, technology, accessability, professional staff relations, quality assurance-risk management, marketing, and ethics. Considerable concern has been raised in the private sector literature regarding differences in the perspective and management approaches between physicians and administrators, (Schneller E, 1991, Shortell, S, 1991) and the critical need to replace traditional tension between these two groups with an executive team approach to institutional management (Westbury S, 1991, Griffith JR 1992). The remarkable similarity in relative emphasis of content and structure of future issues provided by MTF leadership appears to be evidence that they, and the system they reflect, share more commonality in leader style, management approach, and organizational insight than their private sector counterparts. These expert respondents represented the Naval Medical Corps, Medical Service Corps, and Nurse Corps. Recognizing the limitation that not all issues may be of equal specificity, priorities were derived from the respondent's ratings.

The most important issues predicted by this study will occur in the areas of leadership abilities, health care delivery systems, cost-finance, and technology. As shown in Table II and Fig. 1; these four domains accounted for 59.4% of the issues identified (63 of 106). These issues are consistent with the challenges that military medicine faces as it balances the high demand for quality health care while restructuring its force for cost containment and fulfilling its primary operational mission.

The strong concern over the health care delivery domain and cost/finance is evidence of the rapidly changing nature of the health delivery system in the Navy. This business orientation was surpassed by the need for effective interpersonal skills and the ability to ethically manage complex relationships. No longer are hospital commanders managing a single hospital but a complex hospital system. Health care administrators will need to continue to seek ways to enhance the precision of business operations but their fundamental mission will require more than the ability to quantitatively assess their environment.

The ranking of issue domains by these military health care executives was remarkably similar to their military and civilian counterparts. However, the higher ranking of interpersonal, leadership and organizational issues, and lower ranking of cost-finance and business issues as compared to the private sector is evidence of differences in environmental structure and organizational culture. This finding supports the need for military specific research. Caution should be used when applying civilian organizational or leadership models in this environment.

Skill, Knowledge, and Ability Requirements for the Future

Upon establishment of the major issues facing administrators in the future, the degree of certain job SKAs necessary to successfully manage those issues were identified. The reliability of the responses were assessed with Cronbach's Alpha (See Table III). Two levels of analysis were used to identify these crucial skills. First, the ranking of SKAs within each specific domain was established. The second level of analysis identified the most and least important SKAs when all domains were aggregated. The top and bottom ten SKAs were selected for analysis (see Table V and VI). This analysis clearly suggests that the administrator's top-rated SKAs center on interpersonal skills. These SKAs suggest that administrators will need to know more than computer assisted decision making. The ability to articulate vision, build a collaborative environment, and exist in the bounded chaos of today's medical system will be of importance. This may be a reflection of the executive level of the respondents. Their need for more global skill rather than the specific skill of the functional specialist may have been reversed if a more junior respondent cluster had been chosen.

CHAPTER 4

Conclusions

In parallel with their corporate counterparts, federal health care leaders must be preparing now for a future in which present day challenges will intensify as a result of continued cost escalation, redefinition of quality in terms of cost-value linkages, capitated payments, and continued growth and evolution of contractual arrangements with private sector business partners (Miller 1989; Hudak, Brooke, and Finstuen 1994).

People are not promoted because they were effective yesterday, rather, they are promoted because they are to be effective tomorrow (Fralic 1992). Thus, the utility of this research, in addition to forecasting and reporting future issues identified by Naval health care executives, is only bounded by one's imagination. Effectiveness in a chosen profession will certainly be the prime measure of one's success in the future. Drucker would instruct that we must first start by making ourselves effective (Flowers 1991). To this end, the health care executive may use these results to clarify what constitutes the executive competencies to develop within oneself for success in future health care administrative positions.

In the civilian community, the changing health care environment is forcing leaders to take a new look at the requirements necessary to produce quality healthcare executives. In an environment that includes managed care, internal cost controls, and competition for patients, the leader best suited for these tasks is one with a visionary leadership style and participatory management style (Greene J, 1990, SV Fisk, LM Maas, 1995).

The health care executive in the next decade will work assiduously to accomplish two

things: First, to acquire and sharpen every skill that will be needed to perform competently; and second, to assure that those who follow will be ready, enthusiastic, and well prepared to face the challenges of the future (Decker and Sullivan 1992). To be effective, the requisite skills of diplomacy, negotiation, and the use of power-based strategies or alliances are required (Farley and Stoner 1989).

This study has identified the key issues that will face Naval medical managers in the future. Knowledge of these specific executive skills should guide future leaders in their learning efforts. These predicted issues will require a broad spectrum of skills. In the reality of continued reductions in available resources with a constant demand for services, future leaders will need financial, quantitative, and general managerial skills. The technical skills related to managed care organization administration and information systems will be essential. It should be emphasized, however, that interpersonal and leadership skill development will be crucial in the complex medical delivery systems of the future. A blend of the specialized and generalized skills will ensure successful leadership in the twenty-first century.

Health care executives who have learned to cultivate self-awareness about their capacity to cope with change and crisis will be the ones who continue to accomplish goals in the face of turbulent times. Those executives will approach the future with balance, direction, flexibility, and vision; bridging the gap to the twenty-first century (Ross 1992).

The future of leadership lies with the non-coercive forms of authority, an area where Americans have a special advantage. "Soft" or "co-optive" power allows the ability of one individual to induce others to define their own interests in ways consistent with one's own vision (Nye 1990). It is notable that these senior Naval Medical Department leaders identified

leadership skills over managerial skills. Where a manager is defined as one that deploys things and analyzes trends, a leader that aligns people, and gets varied individuals involved in some common cause (Write 1990).

The key domains and specific skills identified in this study should be considered when judging the current HCA training for Naval health care executives and used to guide current and future attempts to modify and solidify that training. Naval medical leadership could use these findings to establish a priority of training for its personnel. This would lend a logical method of training mid and upper level executives toward the forty core competencies established by the Department of Defense for Health Affairs' Joint Core Curriculum Development Working Group (1995) as necessary for prospective hospital commanders as well as Regional Lead Agents and their senior staff (Deputy Secretary of Defense Memorandum, 18 December 1994; Joint Medical Executive Skills Development Group, 9 December 1996).

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Enclosure 1

E-Mail to Initiate This Delphi Study

Dear Commanding Officers,

I would appreciate your taking a few minutes to read the enclosed material and consider participating in the worthwhile Delphi Study. This research, entitled "Executive Skills 2000," will seek to identify the most critical issues and differentiate the job skill, knowledge, and ability requirements facing Naval health care executives to the turn of this century.

You were selected to participate in this study because of your recognized leadership and contributions to executive management in the Navy. The importance of this study cannot be overstated since it will help to identify the critical issues of the future and will enable institutions of higher education to educate our future health care executives in the requisite skills. The research results, of course, will be shared with all of our federal colleagues throughout the military health care system.

Please read Enclosure 1 which discusses the objectives of the study. The second enclosure is the actual Delphi instrument. Please note that this is not a survey, but an effective means of assessing the judgment of a group of experts. Of course, your responses will be absolutely confidential. At no time will individual respondents be identified.

I appreciate your assistance and thank you in advance for you election to participate in this worthwhile project. For your convenience, we will attempt this project over E-mail; the first time this has been attempted in the literature. If there are questions or need for clarification on any part of "Executive Skills 2000," please call me at 1-800-722-7472 or send an E-mail to: jsentell@erols.com.

An Information Paper for Delphi Panelists

Background Information

The role of the health care executive is rapidly changing to meet the ever-growing demands of today's society. Skyrocketing costs, technological advances, an aging population and issues of access continue to impact on all aspects of the health care industry. In this evolving and highly uncertain environment, health care executives must not only maintain current skills, but also develop new skills that will be required to meet issues of the future.

Objectives

Executive Skills 2000 is a project being conducted by CDR John W. Sentell, MC, USN, an administrative resident of the U. S. Army-Baylor University, Graduate Program in Health Care Administration, to identify major future health care executive issues to the year 2000. This project will further expound on anticipated skill, knowledge, and ability requirements that you, as professional experts in this field, expect will be needed to successfully operate in a complex and fluid environment.

Expert Respondents

Naval Commanding Officers, Executive Officers and Directors for Administration of all Medical Treatment Facilities were selected as respondents. This world wide group of health care executives includes Medical, Medical Service, and Nurse Corps Officers. Respondents were chosen due to their vast and diverse executive experience and demonstrated desire to provide quality health care in the Naval environment.

Methods

THIS IS NOT A SURVEY. The technique being employed in known as the Delphi Method. The Delphi was initially developed by the Rand Corporation and is a means of eliciting and gaining expert group judgements. Panelists are not required to travel; nor is advanced reading required. It has three hallmark features: 1) all responses are anonymous and expert opinions obtained by questionnaire; 2) interaction among panelists is accomplished at each round by synthesizing all responses, informing each panelist of the group's current position and redistributing the questionnaire results for further consideration; and 3) the group generally achieves a consensus after a few rounds.

How Long Will It Take?

It is estimated it will take forty-five minutes to one hour total time, over a three to four month period to respond to two questionnaires. The first will request one or two sentence answers to specific questions as well as suggestions for additional questions. In the subsequent questionnaire, the format will change to numerical responses, such as rating or ranking items, and hence should require less time than the first. At each round, we hope to receive your responses within a week to remain on schedule.

Personal Utility of Results

By participation in Executive Skills 2000, each expert will play a part in the determination of current new directions in the area of executive management for the Navy to the year 2000. We believe that you will find it interesting to respond to your own and other executives' ideas in the project. We will send each participant a summary report of the Delphi

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results upon completion of the project.

What Will the Results Be Used For?

Complied results from this study may be used in several ways. First, they can be
incorporated in the strategic plans of the institutions of higher federal education as they plan
future curriculum development programs. Next, using our findings, comparisons will be made
through the various serviced health care executives. These findings may also be used to judge
and compare various educational styles for effectiveness and efficiency. We would like to
publish the outcomes of this study in a professional journal to add to the stream of research in
this area and aid health care executives to meet the challenge of the year 2000 and beyond.

For Further Information Contact:

CDR John W. Sentell, MC, USN

E-mail jsentell@erols.com

1-800-722-7472

Executive Skills 2000

Please complete and return by E-mail this questionnaire as soon as possible to:

jsentell@erols.com (CDR John W. Sentell, MC, USN)

Instructions: Specifically, list what you consider to be the **TOP FIVE** issues that health care executives will encounter in the next ten years. Define the problems or issues as clearly as possible (in more than categorical terms). An example of the kind of issue we are seeking might be: "Management of vender contracts".

Next, for each of the identified issues, list what you consider to be the requisite skills, knowledge, or abilities that will be needed to deal with each of the health care executive issues. To follow the previous example; the skills, knowledge, or abilities to meet this need may include emphasis on negotiating, interpersonal relations, communication, computing, forecasting, or cost analysis.

Thank you for your time and cooperation.

TOP FIVE HCA ISSUES	Skills, Knowledge, or Abilities
1.	
2.	
3.	
4.	
5.	

Additional Comments

Enclosure 2

E-mail for Delphi Round 2

Dear Sirs,

Enclosed are the first round results of the Delphi study entitled "**Executive Skills 21: A Forecast of Leadership Skills and Associated Competencies Required by Naval Hospital Administrators in the 21st Century.**" As you may recall, this research seeks to identify the most critical issues and differentiate the job skill, knowledge, and ability requirements facing Naval hospital executives in the next decade.

As promised, I intend to provide as much feedback as possible. Accordingly, I think that Attachment 1 will be of interest to you since it provides the first round's detailed responses from all of the participants. I am very appreciative for the prompt and thorough responses that led to a 62 percent return rate; a rate that is very reasonable given the type of research methodology used.

Regardless of whether you responded to the first questionnaire, I now request that you take a few minutes to complete and return the questionnaire of Enclosure 2. Although the questionnaire is longer than the first one, you will be able to complete it more quickly because the format only requests numerical responses. I would appreciate you returning the questionnaire within one week from receipt. Some problems arose by using the e-mail system during the first round. It may be easier to down load this section, simply circle the appropriate answers, and return it to me by mail.

Again, this is for Commanding Officers, Executive Officers, and Directors for

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Administration. Commanders, please see that these officers receive this questionnaire. Thank you again for valuable time. Participating in the project may help benchmark the direction of executive skill education in the Navy's medical department for the next decade.

Should anyone have any comments, recommendations, or questions, please call me at 1-800-722-7472 or E-mail jsentell@erols.com. Should you desire to return the questionnaire by mail, please send it to:

John Sentell

4330 Duncan Dr.

Annandale, VA 22003

Very Respectfully,

John W. Sentell, M. D.

Feedback to Expert Respondents

Executive Skills 21:

A Forecast of Leadership Skills and Associated Competencies Required by

Naval Hospital Administrators in the 21st Century

A panel of senior Naval Medical Department executives assisted in grouping the issues from the first round of the Delphi study into the domains or categories listed below. On the following pages are questions that apply to the respective domains identified by you. Please rate the **RELATIVE IMPORTANCE** of all of the skills, knowledge, and abilities (SKAs) using the 7-point scale provided to the right of the items.

Issue Domains	Issues Identified	Frequency	SKA Items to be rated
Leadership	19	68	20
Health care delivery	17	49	20
Cost-Finance	16	42	15
Technology	11	30	10
Accessibility	11	28	10
Professional Staff Relations	10	27	10
Marketing	9	26	10
Quality/Risk Management	8	25	10
Ethics	5	7	5
Totals	106	302	110

When the data analysis are complete, we will be sending you a copy of the final results

of the study. Again, thank you for your time and cooperation.

V/R

John W. Sentell, M. D.

Feedback From Delphi Round 1

Thank you for interest in this research study. Feedback results from the project thus far are provided for your information. As you recall, all Naval hospital Commanding Officers, Executive Officers, and Directors for Administration are the expert respondents in this study.

Sample size:	87
Round one answers returned	54
Return Rate	62%
Unique Issues Identified	106
Frequency of Identified Issues	302

The specific issues identified in the first round of the Delphi and their respective frequencies are listed below. Please take a moment to look through the list prior to completing the questionnaire.

KEY PHRASE ISSUE FREQUENCIES

GROUPED BY HEALTH CARE DOMAIN CATEGORIES

HCA Domain	Issues Identified with Frequencies
Leadership	People Skills (13)
total issues identified (19)	Strategic Planning/thinking (9)
total frequencies (68)	Communications Skills (6)
	Negotiations Skills (6)
	Public Relations (6)
	Team Building (5)
	Vision (5)
	Mentoring (3)
	Understanding organizational behavior (3)
	Civil Service/Union issues (2)
	Managing Change (2)
	MHA/MBA (1)
	Compassion (1)
	Empowerment of subordinates (1)
	Knowledge of managing complex systems (1)
	Managing diversity (1)

Personal responsibility (1)

Tri-service knowledge (1)

Understanding the principles of managed care (1)

Health Care Delivery   Managed care (9)

total issues identified (17)   Community education (7)

frequency of issues (49)   Community focus (5)

Contract management (5)

Adaptability / Flexibility (3)

Graduate Medical Education (3)

Home health care (3)

Patient centered teams (3)

Increased ambulatory care (2)

Plant modernization / reengineering (2)

Case management (1)

Developing a caring environment (1)

Good products at competitive prices (1)

Holistic focus (1)

Primary care system (1)

Right sizing (1)

Wellness and prevention programs (1)

Cost-Finance   Cost analysis/containment (11)

37

total issues identified (16)   Business / fiscal knowledge (7)

frequency of issues (42)   Resource shifting / management (5)

Budgeting (3)

Make-buy decisions (3)

Financial management (2)

Medicare/ Medicaid/OM&N/Champus (2)

Basic accounting (1)

Capitation (1)

Financial ingenuity (1)

Fund sourcing (1)

Prime vendor operations (1)

Procurement regulations (1)

Reimbursement budgeting (1)

Technology / cost balance (1)

Writing grants (1)

<u>Technology</u>   Information management (6)

total issues identified (11)   Quantitative measurement (6)

frequency of issues (30)   Data Collection and analysis (5)

Information Systems (3)

Computer / network expertise (2)

Cost of evolving technology (2)

Forecasting / simulation models for efficiency (2)

Executive decision making (1)

Internet access (1)

Measures of quality (1)

Telemedicine and teleconferencing (1)

Accessability

total issues (11)

·frequency of issues (28)

Increased access to care (11)

Increase in ambulatory care/primary care (4)

Ageing population (3)

Public health issues/ epidemiology (2)

Contingency Planning (2)

Control of complex systems (1)

Improved productivity (1)

Line issues and deployment tempo (1)

Provider networking (1)

Systems analysis (1)

Uninsured patients (1)

Professional Staff

total issues identified (10)

frequency of issues (27)

Education and training (12)

Readiness (5)

Conflict resolution (2)

Human resources management (2)

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Constant learning (1)

Innovation (1)

Medical staff planning (1)

Military / civilian mix (1)

Risk taking (1)

Self development (1)

Marketing

·total issues identified (9)

frequency of issues (26)

Marketing (11)

Customer Knowledge (4)

Market analysis (4)

Advertising (2)

Medical intelligence (1)

Move to a WE focus (1)

Prioritizing (1)

Proactive approach (1)

Providers as customers (1)

Quality/Risk Management

total issues identified (8)

frequency of issues (25)

Outcomes Measures (9)

TQL/CQI (5)

Regulatory issues (JCAHO, OSHA, IG) (3)

Statistical analysis (3)

Provider profiling (2)

Practice guidelines (1)

Quality improvement (1)

Systems analysis (1)

Ethics   Ethics (3)

total issues identified (5)   Bioethical/medical-legal concerns (1)

frequency of issues (7)   Rationing of medical care (1)

Organizational ethics (1)

Moral integrity (1)

Demographic Data

Delphi Respondent Background Information

Please take a moment to complete the following items. Fill in the blanks or "X" as appropriate. Thank you.

Age:_____ years   Gender: Female_____ Male_____   Grade:_____

Title/Position: CO_____ XO_____ DFA_____

Facility type: Large Training_____ Community full service_____ Small CONUS_____

OCONUS_____

Educational Background: Please "X" all of the appropriate blocks.

Professional Degree _____

Bachelor's Degree _____

Master's Degree _____

Doctorate Degree_____

Other _____

Experience: please mark all that apply.

Experience in health care settings   _____years

Experience in health care administration _____years

Member of ACHE____ MGMA____ACPE____ other management organizations____

If member of ACHE, what is you affiliation status (i.e. Associate, Diplomate,

Fellow)_____

Questions to Elicit Ratings of SKAs

PLEASE RATE <u>ALL</u> of the Skills, Knowledge, and Abilities according to the importance that should be placed on them. Indecate your answers by "x"ing the appropriate number or circle the number if you are answering on hard copy.

<u>Leadership Issues</u>

Rating

Unimportant to Extremely Important

1. The importance of "people skills"	1	2	3	4	5	6	7
2. Ability to plan/think strategically	1	2	3	4	5	6	7
3. Ability to communicate through speaking writing, and analytical expression	1	2	3	4	5	6	7
4. Knowledge of Nagotiation	1	2	3	4	5	6	7
5. Skill in Public relations	1	2	3	4	5	6	7
6. Ability to build and maintain effective teams	1	2	3	4	5	6	7
7. The need for Vision	1	2	3	4	5	6	7
8. Skill in mentoring	1	2	3	4	5	6	7
9. Knowledge of Organizational Behavior	1	2	3	4	5	6	7
10. Knowledge of Civil Service/Union issues	1	2	3	4	5	6	7
11. Ability to Mange Change	1	2	3	4	5	6	7

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12. Knowledge obtained from advance

    degrees (MHA, MBA, etc.)   1   2   3   4   5   6   7

13. The capacity for compassion   1   2   3   4   5   6   7

14. Skill to empower subordinates   1   2   3   4   5   6   7

15. Knowledge of managing complex

    organizations   1   2   3   4   5   6   7

16. Ability to manage diversity   1   2   3   4   5   6   7

17. Personal responsibility   1   2   3   4   5   6   7

18. Knowledge of the TRI-service

    environment   1   2   3   4   5   6   7

19. Knowledge of the principles of

    managed care   1   2   3   4   5   6   7

20. Ability to interpret state and federal

    laws/regulations accurately   1   2   3   4   5   6   7

Health Care Delivery Systems

1. Understand managed care products and

    to assess cost benefit   1   2   3   4   5   6   7

2. Ability to focus education on community

    level in regards to health issues   1   2   3   4   5   6   7

3. Skill to focus the health care team on the

customer (i.e. the community)   1   2   3   4   5   6   7

4. Ability to manage contract negotiations   1   2   3   4   5   6   7

5. Ability to adapt by creating a flexible

    organization   1   2   3   4   5   6   7

6. Skill to Manage and integrate Graduate

    Medical Education   1   2   3   4   5   6   7

7. Knowledge of Home Health Care systems   1   2   3   4   5   6   7

8. Ability to manage patient centered teams   1   2   3   4   5   6   7

9. Skill to organize and manage ambulatory

    medical care   1   2   3   4   5   6   7

10. Knowledge of reengineering of the

    hospital to accomodate managed care   1   2   3   4   5   6   7

11. Need for case management   1   2   3   4   5   6   7

12. Ability to create and maintain a

    caring environment   1   2   3   4   5   6   7

13. The skill to judge the quality of medical

    care rendered for the price offered   1   2   3   4   5   6   7

14. The need for a holistic-community approach

    to health care delivery   1   2   3   4   5   6   7

15. Development of a primary care system rather

    than a specialty care environment   1   2   3   4   5   6   7

16. The need for right sizing   1   2   3   4   5   6   7

17. The need to develop and manage wellness

    and prevention programs   1   2   3   4   5   6   7

18. Understanding DRG reimbursements   1   2   3   4   5   6   7

19. The ability to integrate a continuum

    of care   1   2   3   4   5   6   7

20. Ability to work credibly with multi-disciplinary

    leadership   1   2   3   4   5   6   7

Cost-Finance

1. Knowledge of cost analysis   1   2   3   4   5   6   7

2. Business/fiscal knowledge   1   2   3   4   5   6   7

3. Ability to recognize the need for and manage

    resource shifting   1   2   3   4   5   6   7

4. Skill in budget analysis and development   1   2   3   4   5   6   7

5. Ability to accurately assess make/buy

    decisions   1   2   3   4   5   6   7

6. Knowledge of the financial management of

    scarce resources   1   2   3   4   5   6   7

7. Knowledge of the trends in Medicare and

    Medicaid   1   2   3   4   5   6   7

8. Skill in basic accounting   1   2   3   4   5   6   7

9. Understanding of the impact of a capitation

     environment   1   2   3   4   5   6   7

10. Skill in financial ingenuity   1   2   3   4   5   6   7

11. Knowledge of fund sourcing   1   2   3   4   5   6   7

12. Understanding of prime vendors   1   2   3   4   5   6   7

13. Knowldge of procurement regulations   1   2   3   4   5   6   7

14. Ability to analyze and manage

     technology vs. cost ballence   1   2   3   4   5   6   7

15. Knowledge of grant writing   1   2   3   4   5   6   7

Technology Issues

1. Knowledge in information management   1   2   3   4   5   6   7

2. Ability to quantitatively measure the health

     care environment for control   1   2   3   4   5   6   7

3. Knowledge of data collection and analysis

     systems   1   2   3   4   5   6   7

4. Knowledge of information systems   1   2   3   4   5   6   7

5. Knowledge of the cost of evolving technology

     and its implementation   1   2   3   4   5   6   7

6. Ability to use forecasting and simulation models to increase

efficiency and effectiveness   1   2   3   4   5   6   7

7. Ability to use executive decision making

     tools   1   2   3   4   5   6   7

8. Knowledge and access to the Internet

     and its resources   1   2   3   4   5   6   7

9. Use of current techonology in quality measurement

     and assessment   1   2   3   4   5   6   7

10. Skill with word processing, data bases, spread sheets

     and graphics   1   2   3   4   5   6   7

Accessability Issues

1. Need for increased access to care   1   2   3   4   5   6   7

2. Ability to organize and manage the shift to ambulatory

     or primary care   1   2   3   4   5   6   7

3. Understanding the difference between coordination

     of care and cost containment   1   2   3   4   5   6   7

4. Knowledge of public health issues   1   2   3   4   5   6   7

5. Ability to plan for contingencies   1   2   3   4   5   6   7

6. Ability to control complex health systems   1   2   3   4   5   6   7

7. Ability to improve productivity   1   2   3   4   5   6   7

8. Knowledge of "line" issues and local

    operation tempos   1   2   3   4   5   6   7

9. Ability to organize and manage provider

    networks   1   2   3   4   5   6   7

10. Skill in systems analysis/process thinking   1   2   3   4   5   6   7

Professional Staff Relations

1. The need for education and training

    initiatives   1   2   3   4   5   6   7

2. Need for operational medical readiness   1   2   3   4   5   6   7

3. Ability to resolve interpersonal/departmental

    conflict   1   2   3   4   5   6   7

4. Ability for innovation   1   2   3   4   5   6   7

5. The ability to manage human resources   1   2   3   4   5   6   7

6. Ability to create a learning environment   1   2   3   4   5   6   7

7. Skill in medical staff planning and knowledge of appropriate

    military/civilian provider mix   1   2   3   4   5   6   7

8. Development of a risk taking environment   1   2   3   4   5   6   7

9. Development of shared vision and values   1   2   3   4   5   6   7

10. Knowledge of the abilities and competencies

    of paraprofessionals   1   2   3   4   5   6   7

Marketing

1. Knowledge of marketing (need)   1   2   3   4   5   6   7

2. Knowledge of the customer   1   2   3   4   5   6   7

3. Skill in market analysis   1   2   3   4   5   6   7

4. Knowledge of advertising and promotion   1   2   3   4   5   6   7

5. Ability to collect medical intelligence in the

   community   1   2   3   4   5   6   7

6. Create a WE focused organization   1   2   3   4   5   6   7

7. Knowledge of what we do best   1   2   3   4   5   6   7

8. Ability to make the providers feel like

   customers   1   2   3   4   5   6   7

9. Skill to give the customers what they want before

   they know they want it   1   2   3   4   5   6   7

10. Knowledge of the niche the organization should hold

   in the managed care environment   1   2   3   4   5   6   7

Quality and Risk Management

1. Knowledge and ability to implement TQM and

   CQI concepts   1   2   3   4   5   6   7

2. Ability to collect, analyze, and interpret

   Data   1   2   3   4   5   6   7

3. Understanding of JCAHO, OSHA, IG

    regulations   1   2   3   4   5   6   7

4. Understand the use of statistical analysis   1   2   3   4   5   6   7

5. Knowledge of provider clinical profiles   1   2   3   4   5   6   7

6. Understanding and use of clinical practice

    guidelines   1   2   3   4   5   6   7

7. Ability to define, establish, maintain, evaluate and

    improve institutional standards   1   2   3   4   5   6   7

8. Ability to conduct and interpret epidemiological studies

    of disease outbreaks   1   2   3   4   5   6   7

9. Ability to reformulate hopsital standards to emphasis

    function and performance   1   2   3   4   5   6   7

10. Skill in management of process action

    teams   1   2   3   4   5   6   7

Ethical Issues

1. Knowledge of current ethical standards of

    society   1   2   3   4   5   6   7

2. Knowledge of medical-legal issues   1   2   3   4   5   6   7

3. Ability to ration medical care appropriately in

    an environment of scarce resources   1   2   3   4   5   6   7

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4. Knowledge of the organization's ethical

   standards   1   2   3   4   5   6   7

5. Ability to maintain moral integrity in the managed

   care environment   1   2   3   4   5   6   7

TABLE I

KEY PHRASE ISSUE FREQUENCIES

GROUPED BY HEALTH CARE DOMAIN CATEGORIES

HCA Domain	Issues Identified with Frequencies
Leadership	People Skills (13)
total issues identified (19)	Strategic Planning/thinking (9)
total frequencies (68)	Communications Skills (6)
	Negotiations Skills (6)
	Public Relations (6)
	Team Building (5)
	Vision (5)
	Mentoring (3)
	Understanding organizational behavior (3)
	Civil Service/Union issues (2)
	Managing Change (2)
	MHA/MBA (1)
	Compassion (1)
	Empowerment of subordinates (1)
	Knowledge of managing complex systems (1)

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Managing diversity (1)

Personal responsibility (1)

Tri-service knowledge (1)

Understanding the principles of managed care (1)

Health Care Delivery

total issues identified (17)

frequency of issues (49)

Managed care (9)

Community education (7)

Community focus (5)

Contract management (5)

Adaptability / Flexibility (3)

Graduate Medical Education (3)

Home health care (3)

Patient centered teams (3)

Increased ambulatory care (2)

Plant modernization / reengineering (2)

Case management (1)

Developing a caring environment (1)

Good products at competitive prices (1)

Holistic focus (1)

Primary care system (1)

Right sizing (1)

Wellness and prevention programs (1)

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Cost-Finance

total issues identified (16)

frequency of issues (42)

Cost analysis/containment (11)

Business / fiscal knowledge (7)

Resource shifting / management (5)

Budgeting (3)

Make-buy decisions (3)

Financial management (2)

Medicare/ Medicaid/OM&N/Champus (2)

Basic accounting (1)

Capitation (1)

Financial ingenuity (1)

Fund sourcing (1)

Prime vendor operations (1)

Procurement regulations (1)

Reimbursement budgeting (1)

Technology / cost balance (1)

Writing grants (1)

Technology

total issues identified (11)

frequency of issues (30)

Information management (6)

Quantitative measurement (6)

Data Collection and analysis (5)

Information Systems (3)

Computer / network expertise (2)

Cost of evolving technology (2)

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Forecasting / simulation models for efficiency (2)

Executive decision making (1)

Internet access (1)

Measures of quality (1)

Telemedicine and teleconferencing (1)

Accessability

total issues (11)

frequency of issues (28)

Increased access to care (11)

Increase in ambulatory care/primary care (4)

Ageing population (3)

Public health issues/ epidemiology (2)

Contingency Planning (2)

Control of complex systems (1)

Improved productivity (1)

Line issues and deployment tempo (1)

Provider networking (1)

Systems analysis (1)

Uninsured patients (1)

Professional Staff

total issues identified (10)

frequency of issues (27)

Education and training (12)

Readiness (5)

Conflict resolution (2)

Human resources management (2)

Constant learning (1)

Innovation (1)

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Medical staff planning (1)

Military / civilian mix (1)

Risk taking (1)

Self development (1)

Marketing   Marketing (11)

total issues identified (9)   Customer Knowledge (4)

frequency of issues (26)   Market analysis (4)

Advertising (2)

Medical intelligence (1)

Move to a WE focus (1)

Prioritizing (1)

Proactive approach (1)

Providers as customers (1)

Quality/Risk Management   Outcomes Measures (9)

total issues identified (8)   TQL/CQI (5)

frequency of issues (25)   Regulatory issues (JCAHO, OSHA, IG) (3)

Statistical analysis (3)

Provider profiling (2)

Practice guidelines (1)

Quality improvement (1)

Systems analysis (1)

Ethics

total issues identified (5)

frequency of issues (7)

Ethics (3)

Bioethical/medical-legal concerns (1)

Rationing of medical care (1)

Organizational ethics (1)

Moral integrity (1)

TABLE II

SKA RATING RELIABILITIES

BY HEALTH CARE DOMAIN CATEGORIES

HCA Domain	SKA Items rated	Cronbach's Alpha
Leadership	20	.96
Health Care Delivery	20	.96
Cost-Finance	15	.92
Technology	10	.85
Accessability	10	.87
Professional Staff	10	.86
Marketing	10	.85
Quality/Risk Management	10	.84
Ethics	5	.90
Total	110	--

TABLE III

KEY PHRASE ISSUE FREQUENCIES AND PERCENTAGES

BY HEALTH CARE DOMAIN CATEGORIES

HCA Domain	n	%
Leadership	68	22.52
Health Care Delivery	49	16.23
Cost-Finance	42	13.91
Technology	30	9.93
Accessability	28	9.27
Professional Staff	27	8.94
Marketing	26	8.61
Quality/Risk Management	25	8.28
Ethics	7	2.32
Total	302	100.00

TABLE IV

DESCRIPTIVE STATISTICS FOR THE TOP RATED SKA REQUIREMENTS IN EACH DOMAIN

HCA Domain	SKA Item	Mean (SD)
Leadership	People skills	6.57 (.73)
Health Care Delivery	Managing multidisciplenary teams	6.14 (.84)
Cost-Finance	Understanding Capitation	5.86 (.84)
Technology	Information management	5.71 (.71)
Accessability	Managing ambulatory care	6.14 (.83)
Professional Staff	Innovation	6.29 (.71)
Marketing	A "WE" focus	6.14 (.84)
Quality/Risk Management	Standardization of care	6.00 (.93)
Ethics	Moral integrity	6.29 (.89)

TABLE V

TOP TEN RATED SKILLS, KNOWLEDGE, AND ABILITIES

NEEDED FOR FUTURE SUCCESS

HCA Domain	SKA Item	Mean (SD)
Leadership	People skills	6.57 (.73)
Leadership	Team Building	6.43 (.50)
Leadership	Personal responsibility	6.43 (1.06)
Professional Staff	Innovation	6.29 (.71)
Leadership	Communication skills	6.29 (.71)
Ethics	Moral integrity	6.29 (.89)
Ethics	Organizational Ethics	6.29 (.71)
Health Care Services	Managing multidisciplenary teams	6.14 (.84)
Health Care Services	Wellness program development	6.14 (.35)
Marketing	Developing a "WE" focus	6.14 (.84)

TABLE VI

DESCRIPTIVE STATISTICS SUMMARY OF BOTTOM 10

LOWEST-RATED JOB SKA REQUIREMENTS

| HCA Domain	SKA	Mean (SD)
Quality/Risk Management	Process Action Team management	4.43 (.91)
Quality/Risk Management	Knowledge of Epidemiology	4.43 (.91)
Cost-Finance	Prime Vender Knowledge	4.29 (.89)
Leadership	MHA/MBA degree	4.29 (.71)
Health Care Services	Integration of GME	4.29 (1.04)
Health Care Services	Home Health Care Delivery	4.29 (.89)
Cost-Finance	Procurement Regulations	4.14 (1.56)
Leadership	Interpret laws and regulations	4.00 (1.08)
Cost-Finance	General Accounting	3.71 (1.04)
Cost-Finance	Grant Writing	3.71 (1.29)
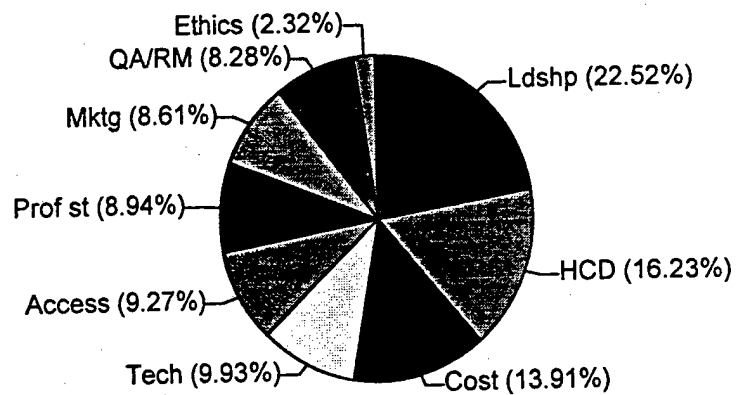
Fig. 1. Frequencies of HCA Domains identified by Naval Hospital Health Care

Executives.

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13. ABSTRACT (Maximum 200 words)

Those in the Naval Medical Department are experiencing an exciting time of bridled chaos and creative change. Many mid-career officers are uncertain of the leadership behaviors and skills that will be necessary for successful managerial careers. Changes in the method of health care delivery in this nation, combined with the reengineering of the Armed Forces' world wide mission, have driven military medical leaders to expand their professional skills, knowledge, and abilities beyond the clinical sciences. This research identifies the most critical domains in the science of health care administration and differentiates and ranks job skill, knowledge, and ability requirements that will be necessary for successful health care management into the 21st century. Top Naval Hospital executives responded to two iterations of a Delphi inquiry. These medical leaders identified 106 unique issues that were content-analyzed into nine domains by a neutral, expert panel. Domains, in order of ranked importance, were leadership, health care delivery systems, cost-finance, technology, accessability, professional staff relations, marketing, quality-risk management, and ethics. In the second Delphi iteration, hospital executives reviewed domain results and rated identified job requirements on their required job importance. The top ten rated skills, knowledge, and abilities (SKAs) are reported. Results indicated that while a business orientation is needed for organizational survival, an emphasis on person-oriented skills, knowledge, and abilities is required for future success as a health care administrator in the Naval health care system.

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